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2 **CLAIMS:**

3 What is claimed is:

1 1. A method for monitoring a directory service, the
2 method comprising:

3 scanning event logs for components and applications
4 utilized by a directory service within a distributed data
5 processing system;

6 responsive to a determination that an error is
7 indicated by one of the event logs, consulting a
8 knowledge base to determine if an entry for the error is
9 contained within the knowledge base, wherein the
10 knowledge base contains entries for known errors and
11 associated corrective actions;

12 responsive to a determination that an entry for the
13 error is contained within the knowledge base, determining
14 corrective actions to be taken to correct the error and
15 determining whether the corrective actions are authorized
16 under present conditions of the distributed data
17 processing system; and

18 responsive to a determination that the corrective
19 actions are authorized, committing the corrective
20 actions.

1 2. The method as recited in claim 1, further
2 comprising:

3 responsive to a determination that the corrective
4 action is not authorized, paging support personnel;
5 logging relevant information related to the error;
6 and
7 providing a report concerning the error to a
8 monitoring console.

1 3. The method as recited in claim 1, wherein
2 determining the corrective actions comprises consulting a
3 table containing identified errors and associated
4 corrective actions.

1 4. The method as recited in claim 1, further
2 comprising:
3 responsive to a determination that the error is not
4 found in the knowledge base, paging support personnel;
5 logging relevant information related to the error;
6 and
7 providing a report concerning the error to a
8 monitoring console.

1 5. The method as recited in claim 1, further
2 comprising:
3 querying directory service objects for errors;
4 responsive to a determination that an error is found
5 from querying the directory service objects for errors,
6 consulting a knowledge base to determine whether an entry
7 for the error is contained within the knowledge base,

8 wherein the knowledge base contains entries for know
9 errors and associated corrective actions;
10 responsive to a determination that an entry for the
11 error is contained within the knowledge base, determining
12 corrective actions to be taken to correct the error and
13 determining whether the corrective actions are authorized
14 under present conditions of the distributed data
15 processing system; and
16 responsive to a determination that the corrective
17 actions are authorized, committing the corrective
18 actions.

1 6. The method as recited in claim 5, further
2 comprising:
3 responsive to a determination that an error is not
4 found after querying the directory service objects for
5 errors, testing a component within the distributed data
6 processing system and utilized in conjunction with the
7 director service to determine whether the component is
8 functioning properly;
9 responsive to a determination that an error exists
10 preventing the component from functioning properly,
11 consulting a knowledge base to determine if an entry for
12 the error is contained within the knowledge base;
13 responsive to a determination that an entry for the
14 error is contained within the knowledge base, determining
15 corrective actions to be taken to correct the error and
16 determining whether the corrective actions are authorized

17 under present conditions of the distributed data
18 processing system; and
19 responsive to a determination that the corrective
20 actions are authorized, committing the corrective
21 actions.

1 7. A computer program product in a computer readable
2 medium for use in a data processing system for monitoring
3 a directory service, the computer program product
4 comprising:
5 first instructions for scanning event logs for
6 components and applications utilized by a directory
7 service within a distributed data processing system;
8 second instructions for consulting a knowledge base
9 to determine if an entry for the error is contained
10 within the knowledge base if it is determined that an
11 error is indicated by one of the event logs, wherein the
12 knowledge base contains entries for known errors and
13 associated corrective actions;
14 third instructions for determining corrective
15 actions to be taken to correct the error and determining
16 whether the corrective actions are authorized under
17 present conditions of the distributed data processing
18 system if it is determined that an entry for the error is
19 contained within the knowledge base; and
20 fourth instructions for committing the corrective
21 actions if it is determined that the corrective actions
22 are authorized.

1 8. The computer program product as recited in claim 7,
2 further comprising:

3 fifth instructions for paging support personnel if
4 it is determined that the corrective action is not
5 authorized;

6 sixth instructions for logging relevant information
7 related to the error; and

8 seventh instructions for providing a report
9 concerning the error to a monitoring console.

1 9. The computer program product as recited in claim 7,
2 wherein determining the corrective actions comprises
3 consulting a table containing identified errors and
4 associated corrective actions.

1 10. The computer program product as recited in claim 7,
2 further comprising:

3 fifth instructions for paging support personnel if
4 it is determined that the error is not found in the
5 knowledge base;

6 sixth instructions for logging relevant information
7 related to the error; and

8 seventh instructions for providing a report
9 concerning the error to a monitoring console.

1 11. The computer program product as recited in claim 7,
2 further comprising:

3 fifth instructions for querying directory service
4 objects for errors;

5 sixth instructions for consulting a knowledge base
6 to determine whether an entry for the error is contained
7 within the knowledge base if it is determined that an
8 error is found from querying the directory service
9 objects for errors, wherein the knowledge base contains
10 entries for known errors and associated corrective
11 actions;

12 seventh instructions for determining corrective
13 actions to be taken to correct the error and determining
14 whether the corrective actions are authorized under
15 present conditions of the distributed data processing
16 system if it is determined that an entry for the error is
17 contained within the knowledge base; and

18 eighth instructions for committing the corrective
19 actions if it is determined that the corrective actions
20 are authorized.

1 12. The computer program product as recited in claim 11,
2 further comprising:

3 ninth instructions for testing a component within
4 the distributed data processing system and utilized in
5 conjunction with the directory service to determine
6 whether the component is functioning properly if it is
7 determined that an error is not found after querying the
8 directory service objects for errors;

9 tenth instructions for consulting a knowledge base
10 to determine if an entry for the error is contained
11 within the knowledge base if it is determined that an

12 error exists preventing the component from functioning
13 properly;
14 eleventh instructions for determining corrective
15 actions to be taken to correct the error and determining
16 whether the corrective actions are authorized under
17 present conditions of the distributed data processing
18 system if it is determined that an entry for the error is
19 contained within the knowledge base; and
20 twelfth instructions for committing the corrective
21 actions if it is determined that the corrective actions
22 are authorized.

1 13. A system for monitoring a directory service in a
2 distributed data processing system, the system
3 comprising:
4 first means for scanning event logs for components
5 and applications utilized by a directory service within a
6 distributed data processing system;
7 second means for consulting a knowledge base to
8 determine if an entry for the error is contained within
9 the knowledge base if it is determined that an error is
10 indicated by one of the event logs, wherein the knowledge
11 base contains entries for known errors and associated
12 corrective actions;
13 third means for determining corrective actions to be
14 taken to correct the error and determining whether the
15 corrective actions are authorized under present
16 conditions of the distributed data processing system if

17 it is determined that an entry for the error is contained
18 within the knowledge base; and
19 fourth means for committing the corrective actions
20 if it is determined that the corrective actions are
21 authorized.

1 14. The system as recited in claim 13, further
2 comprising:
3 fifth means for paging support personnel if it is
4 determined that the corrective action is not authorized;
5 sixth means for logging relevant information related
6 to the error; and
7 seventh means for providing a report concerning the
8 error to a monitoring console.

1 15. The system as recited in claim 13, wherein
2 determining the corrective actions comprises consulting a
3 table containing identified errors and associated
4 corrective actions.

1 16. The system as recited in claim 13, further
2 comprising:
3 fifth means for paging support personnel if it is
4 determined that the error is not found in the knowledge
5 base;
6 sixth means for logging relevant information related
7 to the error; and
8 seventh means for providing a report concerning the
9 error to a monitoring console.

1 17. The system as recited in claim 13, further
2 comprising:
3 fifth means for querying directory service objects
4 for errors;
5 sixth means for consulting a knowledge base to
6 determine whether an entry for the error is contained
7 within the knowledge base if it is determined that an
8 error is found from querying the directory service
9 objects for errors, wherein the knowledge base contains
10 entries for known errors and associated corrective
11 actions;
12 seventh means for determining corrective actions to
13 be taken to correct the error and determining whether the
14 corrective actions are authorized under present
15 conditions of the distributed data processing system if
16 it is determined that an entry for the error is contained
17 within the knowledge base; and
18 eighth means for committing the corrective actions
19 if it is determined that the corrective actions are
20 authorized.

1 18. The system as recited in claim 17, further
2 comprising:
3 ninth means for testing a component within the
4 distributed data processing system and utilized in
5 conjunction with the director service to determine
6 whether the component is functioning properly if it is
7 determined that an error is not found after querying the
8 directory service objects for errors;

9 tenth means for consulting a knowledge base to
10 determine if an entry for the error is contained within
11 the knowledge base if it is determined that an error
12 exists preventing the component from functioning
13 properly;
14 eleventh means for determining corrective actions to
15 be taken to correct the error and determining whether the
16 corrective actions are authorized under present
17 conditions of the distributed data processing system if
18 it is determined that an entry for the error is contained
19 within the knowledge base; and
20 twelfth means for committing the corrective actions
21 if it is determined that the corrective actions are
22 authorized.